

CLAIMS

We claim:

1 1. A release apparatus for a clutch in a motor vehicle having a chassis, said
2 arrangement comprising
3 a master cylinder of a hydraulic system,
4 a pedal for actuating said master cylinder to disengage said clutch, said pedal
5 requiring an actuating force is plotted against pedal travel during actuation of said master
6 cylinder to produce a characteristic curve of said actuating force,
7 an energy accumulator which is pivotable with respect to said chassis, said
8 accumulator storing energy when the clutch is engaged and providing a boosting force which
9 reduces the actuating force when the clutch is disengaged, said boosting force being plotted
10 against pedal travel to produce a characteristic curve of said boosting force, and
11 means for influencing said curve arranged between said energy accumulator and
12 said pedal.

1 2. A release apparatus as in claim 1 wherein said means for influencing said
2 characteristic curve comprises a kinematic arrangement.

1 3. A release apparatus as in claim 2 wherein said kinematic arrangement is
2 an over-center arrangement having a dead center during said pedal travel, said characteristic
3 curve being adapted to modify said characteristic curve primarily beyond said dead center.

1 4. A release apparatus as in claim 1 wherein said actuating force has a
2 maximum which is reduced by boosting force.

1 5. A release apparatus as in claim 2 wherein said kinematic arrangement
2 comprises a swivel lever and a transmission lever.

1 6. A release apparatus as in claim 5 wherein said pedal having an arm
2 extending toward said energy accumulator, said swivel lever having a first joint at said chassis
3 and a second joint at said energy accumulator, said transmission lever connecting said second
4 joint to a third joint at the arm of the pedal.

1 7. A release mechanism as in claim 2 wherein said pedal has an arm
2 extending toward said energy accumulator, said kinematic arrangement comprising a cam
3 follower with a rolling cam, and a roller on the arm of said pedal.

1 8. A release mechanism as in claim 7 wherein said cam follower has a first
2 joint at said chassis and a second joint at said energy accumulator, said moving along said rolling
3 cam and pivoting said cam follower when said clutch is disengaged.

1 9. A release mechanism as in claim 2 wherein said pedal has an end provided
2 with a rolling cam, said kinematic arrangement comprising a spring having a first end connected
3 to said chassis and a second end carrying a roller which is pressed against said rolling cam by
4 said spring.

1 10. A release mechanism as in claim 9 wherein said spring comprises a leg
2 spring having a leg anchored in said chassis.